

Work Order ID 134384

134384

Page 1

Wednesday, July 08, 2015 3:12:11 PM

Item ID: D350-567-141 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Floor Window Close Out
 Start Date: 6/29/15 Start Qty: 1.00 ** Cust Item ID:
 Required Date: 7/07/15 Req'd Qty: 1.00 ** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: JUL 09 2015 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9590	F								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D350-567-141 CHG006								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

JUL 19 2015 DAS 6 9-89

① J.A. JUL 15 2015 DAS 26 9-89

JUL 19 2015 DAS 6 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval										
Description Work Order Deviation				Disposition				Completed By									
								Lead hand / Supervisor Approval Verification									
								QC / QA Coordinator Approval									
Root Cause		FAULT CATEGORY															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :									
Misidentified ☐	Past Due ☐																

Work Order ID 134384***134384***

Page 2

Wednesday, July 08, 2015 3:12:11 PM

Item ID: D350-567-141

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Floor Window Close Out

Start Date: 6/29/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 7/07/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00						DAS 6	
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-567-141 Location: FG033								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

JUL 19 2015

DAS
6
9-89

MCS

JUL 20 2015

MCS JUL 20 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition			Completed By																		
							Lead hand / Supervisor Approval Verification																		
							QC / QA Coordinator Approval																		
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐																			

Picklist Print

Wednesday, July 08, 2015 3:12:10 PM

Page 1

Work Order ID: 134384

134384

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 6/29/15

Required Date: 7/07/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 11.11.09 new issue DD verf:JLM IPP REV:B
12.01.23 AS PER ECN12-511 DD VERF:EC IPP REV:C 12.03.05
AS PER ECN12-537 DD VERF:EC IPP REV:D 13.04.01 AS PER
DSI9590 REV.E DD VERF:JLM IPP REV:E AS PER DSI9590 REV F JLM
VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4434-047 *D4434-047* Cover Assembly		Manufactured	No				Each	8.0000		1			DAS 26 9-89
	DAS 6 9-89			<u>Location</u> ST619				<u>Loc Qty</u> 8 4 4		<u>Loc Code</u>			
				129467 130226									
D3802-1 *D3802-1* Windows Seal (\$ Per Foot)		Manufactured	No			110	f	146.7500	2	2-1			DAS 26 9-89
	DAS 6 9-89			<u>Location</u> ST421				<u>Loc Qty</u> 146.75 146.75		<u>Loc Code</u>			
				134091 122222									
D4434-041 *D4434-041* Fwd Bracket Assembly		Manufactured	No			110	Each	1.0000	1	1			DAS 26 9-89
	DAS 6 9-89			<u>Location</u> ST623				<u>Loc Qty</u> 1 1		<u>Loc Code</u>			
				130223									

DAS
6
9-89

JUL 15 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Pic
Wed
Wor
Par
Par

Picklist Print

Wednesday, July 08, 2015 3:12:10 PM

Page 2

Work Order ID: 134384

134384

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 6/29/15

Required Date: 7/07/15

Start Qty: 1.00

Required Qty: 1.00

AN3

D4435-045

Manufactured No

110

Each

11.0000

1 1

D4435-045

T/R Bellcrank Cover Assembly

DAS
6
9-89

Location

Loc Qty

Loc Code

ST620

11

(127215)

11

110

Each

4.0000

2 2

D4435-9

Manufactured No

D4435-9

Bracket

DAS
6
9-89

Location

Loc Qty

Loc Code

ST107

4

(131056)

4

110

Each

3.0000

1 1

D4436-041

Manufactured No

D4436-041

Aft Bracket Assembly

DAS
6
9-89

Location

Loc Qty

Loc Code

ST623

1

(127849)

1

ST636

2

130229

2

110

f

552.3750

2 2

D4441-1

Manufactured No

D4441-1

Rubber Seal

DAS
9
9-89

Location

Loc Qty

Loc Code

ST407

355.875

120932

355.875

ST422

196.5

(120932)

196.5

Cut 1x 24"
For Kit 150715

DAS
6
9-89

21

J.A

JUL 15 2015

Wednesday, July 08, 2015 3:12:11 PM

Shop Packet Print

Page 2

DQA: _____ DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Cl

QA Closed:

Date:

Work Order update only ☐

Work	Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																																																																																						
	Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																																																																																																			
Description Work Order Deviation					Disposition																																																																																																																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Root Cause</th> <th colspan="6" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td>Environment</td><td>☐</td> <td>No Re-verification</td><td>☐</td> <td>Pressure/Forced</td><td>☐</td> <td>Temperature/Cure</td><td>☐</td> <td>Power Loss/Surge</td><td>☐</td> <td>Positioned Wrong</td><td>☐</td> </tr> <tr> <td>Design</td><td>☐</td> <td>Operator</td><td>☐</td> <td>Bending</td><td>☐</td> <td>Set-up</td><td>☐</td> <td>Folio/Program</td><td>☐</td> <td>Outside Dimensions</td><td>☐</td> </tr> <tr> <td>Doc/Data</td><td>☐</td> <td>Offset/Setup</td><td>☐</td> <td>Centre Not Concentric</td><td>☐</td> <td>BOM/Route</td><td>☐</td> <td>Grain</td><td>☐</td> <td>Over/Under tolerance</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> <td>Supplier</td><td>☐</td> <td>Cracks</td><td>☐</td> <td>Broken/Damage/Defect</td><td>☐</td> <td>Weld</td><td>☐</td> <td>Part Incorrect</td><td>☐</td> </tr> <tr> <td>Handling/Pre</td><td>☐</td> <td>Training</td><td>☐</td> <td>Crimp/Kink/Ripple/Wave</td><td>☐</td> <td>Inspection Incomplete/Unqualified</td><td>☐</td> <td>Wrong Stock Pulled</td><td>☐</td> <td>Part Lost/Missing</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> <td>Use for Testing</td><td>☐</td> <td>Cuffs</td><td>☐</td> <td>Contamination</td><td>☐</td> <td>Out of Sequence</td><td>☐</td> <td>Part Moved</td><td>☐</td> </tr> <tr> <td>Internal Transport</td><td>☐</td> <td>Poor Information</td><td>☐</td> <td>Crushing</td><td>☐</td> <td>Countersink</td><td>☐</td> <td>Off-set</td><td>☐</td> <td>Drawing</td><td>☐</td> </tr> <tr> <td>Tribal Knowledge</td><td>☐</td> <td>Rushing</td><td>☐</td> <td>Heat Treat</td><td>☐</td> <td>Cut Too Short</td><td>☐</td> <td>Mislabeled</td><td>☐</td> <td>Finish</td><td>☐</td> </tr> <tr> <td>LOA</td><td>☐</td> <td>Product Improvement</td><td>☐</td> <td>Wave/Twist in Tube</td><td>☐</td> <td>Instructions Incomplete/Unclear</td><td>☐</td> <td>Fit/Function</td><td>☐</td> <td>Misread</td><td>☐</td> </tr> <tr> <td>Substation</td><td>☐</td> <td>Process Improvement</td><td>☐</td> <td>Marks/Chatter</td><td>☐</td> <td>Drill Holes</td><td>☐</td> <td>Misaligned/off center</td><td>☐</td> <td>Turning Sequence</td><td>☐</td> </tr> <tr> <td>Past Expiry Date</td><td>☐</td> <td>Manufacturing Process</td><td>☐</td> <td colspan="8" rowspan="2" style="text-align: center; vertical-align: middle;">OTHER :</td> </tr> <tr> <td>Misidentified</td><td>☐</td> <td>Past Due</td><td>☐</td> </tr> </tbody> </table>										Root Cause				FAULT CATEGORY						Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐	Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐	Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐	Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐	Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐	Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐	Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐	Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐	LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐	Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐	Past Expiry Date	☐	Manufacturing Process	☐	OTHER :								Misidentified	☐	Past Due	☐
Root Cause				FAULT CATEGORY																																																																																																																																																							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐																																																																																																																																																
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐																																																																																																																																																
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐																																																																																																																																																
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐																																																																																																																																																
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐																																																																																																																																																
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐																																																																																																																																																
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐																																																																																																																																																
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐																																																																																																																																																
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐																																																																																																																																																
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐																																																																																																																																																
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :																																																																																																																																																							
Misidentified	☐	Past Due	☐																																																																																																																																																								

H:/FC

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev I

Picklist Print

Wednesday, July 08, 2015 3:12:11 PM

Page 5

Work Order ID: 134384

134384

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 6/29/15

Required Date: 7/07/15

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

110

Each

1,445.000

5

MS21042L3

Nut

DAS
6
9-89

Location

Loc Qty

Loc Code

FP001

393

M130922

393

GA

436

M131317

436

ST305

616

116549

12

126333

49

M128401

2

M128754

2

M132123

17

M132382

534

MS21059L3

Purchased

No

110

Each

219.0000

2

MS21059L3

Nut Plate

DAS
6
9-89

Location

Loc Qty

Loc Code

CA

16

M129682

16

GA

101

113749

1

M132677

100

ST303

102

M131616

102

MS35206-229

Purchased

No

110

Each

20.0000

7

MS35206-229

Screw

DAS
6
9-89

Location

Loc Qty

Loc Code

ST277

20

M131078

20

Wednesday, July 08, 2015 3:12:11 PM

Shop Packet Print

Page 5

JUL 15 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, July 08, 2015 3:12:11 PM

Page 6

Work Order ID: 134384

134384

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 6/29/15

Required Date: 7/07/15

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

110

Each

2,346.000

12

12

NAS1149F0332P

Washer

DAS
6
9-89

Location

Loc Qty

Loc Code

GA

222

122063

222

ST260a

2031

m128401

6

m131026

80

m131697

1945

st268

93

123900

7

m130388

86

NAS1149FN616P

Purchased

No

110

Each

30.0000

14

14

NAS1149FN616P

WASHER

DAS
6
9-89

Location

Loc Qty

Loc Code

st268

30

M131026

30

NAS1149FN816P

Purchased

No

110

Each

800.0000

2

2

NAS1149FN816P

WASHER

DAS
6
9-89

Location

Loc Qty

Loc Code

st268

800

M17316

800

JUL 15 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-567 REV. E OR EARLIER
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-567 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-18

FAA STC: SH989NE

FAA STC: SH990NE

1.0 Purpose

The purpose of this service instruction is to add the D350-567-141/-143/-145 Close-out Kits, which are intended for customers wishing to operate their aircraft with the interior floor window removed. The D350-567-141/-143/-145 Floor Window Close-out Kits provide a barrier around the interior and exterior vertical reference floor window to prevent objects from falling into the aircraft controls when the interior floor window is removed as shown in Figure 1. The -143 Kit is identical to the -141 Kit with the exception of the D4971-041 T/R Bellcrank Cover Assy which replaces the D4435-045 T/R Bellcrank Cover Assy on aircraft fitted with energy attenuating seats. The -145 Kit is similar to the -143 Kit but is only kit compatible with the AS350 B3e aircraft.

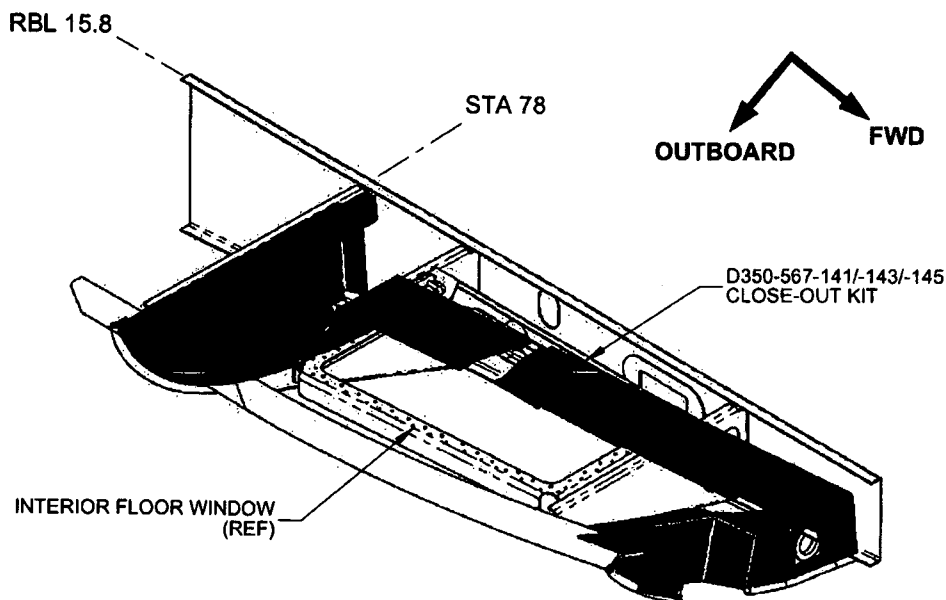


Figure 1. Floor Window Close-out Kit Installation

F	ADDED D4434-047 TO -141 KIT SEE PAR14-372.	AJS	15.01.12
E	ADD -143/-145 KITS	RF	14.03.20
E	CLARIFY FIGURES 3-12	VS	13.09.11
C	CORRECT TYPO NAS1149FN816P WAS NAS1149FN882P	RF	12.03.13
B	MS35206-229 WAS AN525-632R6; NAS1149FN616P (Qty 14) WAS (Qty 9); MS21042L06 (Qty 7) WAS (Qty 9); ADD AN525-832R7, NAS1149FN882P & MS21042L08	RF	12.02.22
A	NEW ISSUE	RF	12.01.09
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AJS	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 1 OF 19
APPROVED	AJS	TITLE	SCALE
DE APPR.	AJS	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REUSED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *D. Shepherd*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

2.0 Parts List

Qty -141	Qty -143	Qty -145	Part Number	Description
X			D350-567-141	FLOOR WINDOW CLOSE-OUT KIT (REGULAR SEATS)
	X		D350-567-143	FLOOR WINDOW CLOSE-OUT KIT (ENERGY ATTENUATING SEATS)
		X	D350-567-145	FLOOR WINDOW CLOSE-OUT KIT (AS 350 B3e)
1	1	1	D3802-1-024	SEAL (24")
1	1		D4434-041	FWD BRACKET ASSEMBLY
1	1		D4434-047	COVER ASSEMBLY
1			D4435-045	T/R BELLCRANK COVER ASSEMBLY
2	2	2	D4435-9	BRACKET
1	1	1	D4436-041	AFT BRACKET ASSEMBLY
1	1	1	D4441-1-240	RUBBER SEAL (24")
		1	D4730-020-030	VELCRO STRIP
	1	1	D4971-041	T/R BELLCRANK COVER ASSEMBLY
		1	D5076-041	FWD BRACKET ASSEMBLY
7	5	5	AN3-3A	BOLT
2	2	2	AN525-10R6	SCREW
2	2	2	AN525-832R7	SCREW
		1	CB 200	3.5g ACRYLIC ADHESIVE
7	7	7	MS21042L06	NUT (OR MS21042-06)
2	2	2	MS21042L08	NUT (OR MS21042-08)
5	5	5	MS21042L3	NUT (OR MS21042-3)
2	2	2	MS21059L3	NUTPLATE
7	7	7	MS35206-229	SCREW
12	10	10	NAS1149F0332P	WASHER (AN960-10L)
14	14	14	NAS1149FN616P	WASHER (OR AN960-6L)
2	2	2	NAS1149FN816P	WASHER (OR AN960-8L)

3.0 Weight and Balance

The following is the net weight increase associated with the D350-567-141/-143/-145 Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-567-141/-143/-145 Floor Window Close-out Kit	3.9 lb 1.77 kg	17.9 in 0.45 m	69.8 in-lb 0.80 m-kG	65.5 in 1.66 m	255.5 in-lb 2.94 m-kG

4.0 Installation Procedure

Notes:

- Figure 2 shows the general arrangement and installation of the D350-567-141/-143/-145 Close-out Kits. The procedure that follows outlines the step-by-step procedures for installing the kit with reference photos from the initial installation.
- In conjunction with this modification, it is acceptable to remove the interior floor windows as applicable. Note that the structural reinforcement around the window opening is still required.
 D350-567-115 - OK to remove D3295-041
 D350-567-031 - OK to remove D3212-1
 D350-567-011 - OK to remove D2214
 D350-567-021 - OK to remove D2951
- It is acceptable to drill/trim the D350-567-141/-143/-145 Close-out Kits as required to improve fit.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 2 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

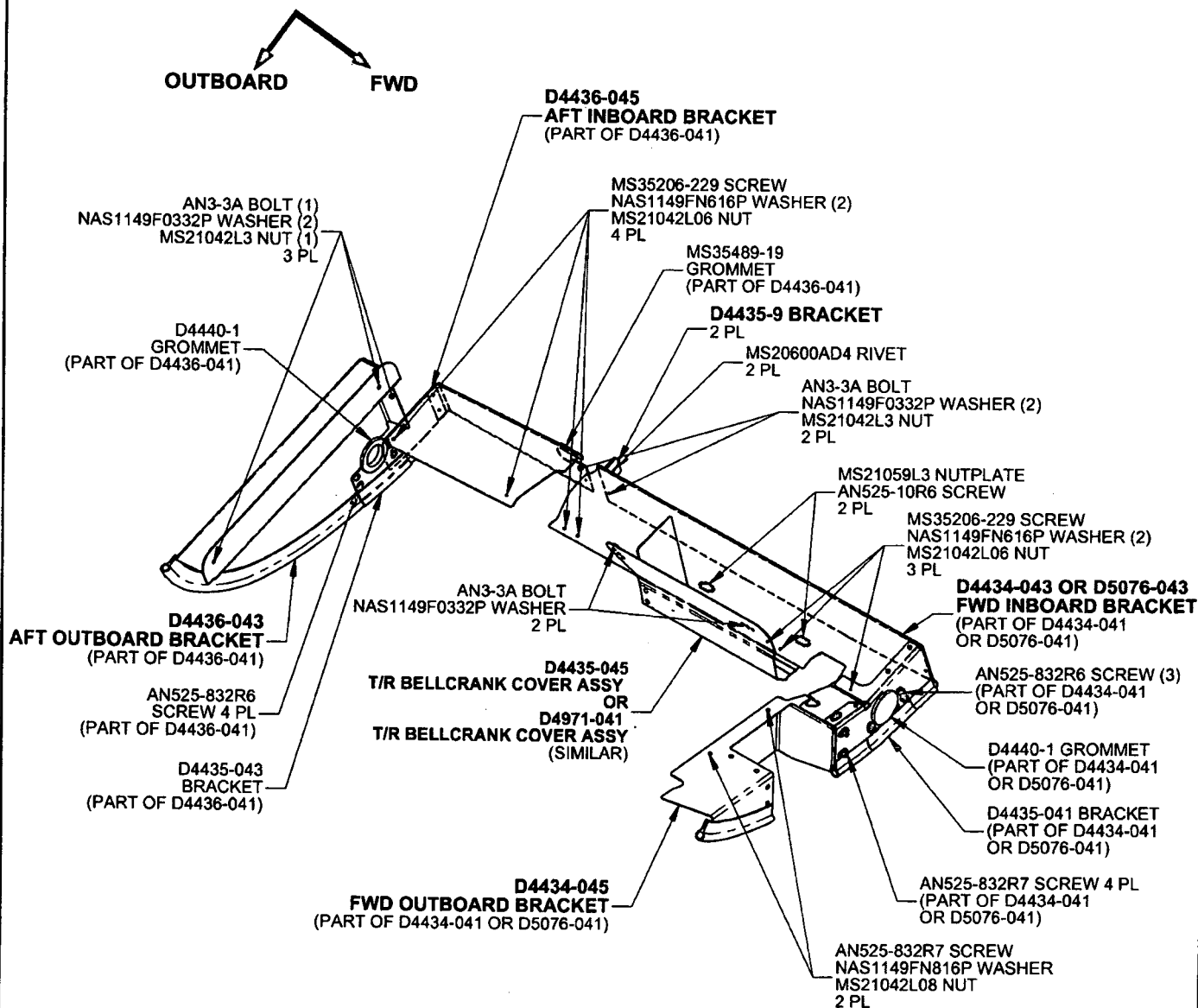


Figure 2. Floor Window Close-out Kit Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	NA	DSI 9590	SHEET 3 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

4.1 Temporarily install D4436-043 Aft Outboard Bracket and D4436-045 Aft Inboard Bracket using clecos and/or cleco clamps. Before drilling holes:

- a) Position the D4436-043 Aft Outboard Bracket so the flange contacts the main beam as shown in Figure 3.
- b) Confirm that the D4436-043 Aft Outboard Bracket and beam angle are parallel as shown in Figure 4.

4.2 Temporarily install D4434-043/D5076-043 Fwd Inboard Bracket and D4434-045 Fwd Outboard Bracket using clecos and cleco clamps. Confirm there is no contact between D4436-045 Aft Inboard Bracket and D4434-043 /D5076-043 Fwd Inboard Bracket and main beam gusset as shown in Figure 5.

F 4.3 For -141 installations, if aircraft is equipped with Collective Circuit Breaker Board box, trim D4434-043 Fwd Inboard Bracket as shown in Figure 14. Note: Confirm the D4434-047 Bracket fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.4 For -143 installations, if aircraft is equipped with Collective Circuit Breaker Board box, trim D4434-043 Fwd Inboard Bracket as shown in Figure 14. Install D4971-041 T/R Bellcrank cover as shown in Figure 13b. Note: Confirm the D4434-047 Bracket fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.5 For -145 installations, if aircraft is equipped with Collective Circuit Breaker Board box, use D5076-043 Fwd Inboard Bracket as shown in Figure 13c. Install D4971-041 T/R Bellcrank cover as shown in Figure 13c. Note: Confirm the D5076-3 Cover fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.6 Drill out rivets holding plastic wire bundle stand offs. Transfer drill $\varnothing 0.144$ holes to D4436-045 Aft Inboard Bracket per Figure 6. Transfer drill 2 x $\varnothing 0.144$ holes to D4434-043/D5076-043 Fwd Inboard Bracket per Figure 7. Transfer drill 2 x $\varnothing 0.144$ holes for D4434-043/D5076-043 Fwd Inboard Bracket per Figure 8. Before drilling confirm the D4434-043/D5076-043 and D4436-045 brackets are flush with outboard edge of main beam flange. Assemble D4436-045 Aft Inboard Bracket and D4434-043/D5076-043 Fwd Inboard Bracket and wire bundle stand offs to main beam flange using MS35206-229 screw, NAS1149FN616P washer and MS21042L06 nut.

4.7 Install D4436-043 Aft Outboard Bracket using AN3-3A bolt and NAS1149F0332P washer and MS21042L3 nut per Figure 9.

4.8 Remove 2 rivets holding RH heating plastic stand off as shown in Figure 10. Position the D4435-9 Brackets on the in/outboard sides of the cross beam and transfer drill 2 x $\varnothing 0.129$ holes from crossbeam to both D4435-9 Brackets. Install D4435-9 Brackets and RH heating plastic stand off using MS20600AD4 rivets or equivalent.

4.9 Drill a pilot hole from D4435-9 Bracket to the D4434-043/D5076-043 Fwd Inboard Bracket and D4436-045 Aft Inboard Bracket and open to $\varnothing 0.191$. Install AN3-3A bolt, NAS1149F0332P washer and MS21042L3 nut as shown in Figure 10. Be sure to maintain edge distance.

4.10 Transfer drill 2 x $\varnothing 0.144$ holes from crossbeam to D4434-045 Fwd Outboard Bracket if holes exist in crossbeam. If holes do not exist, drill 2 x $\varnothing 0.144$ holes at either end of D4434-045 bracket as shown in Figure 11. Install AN525-832R7 screws, NAS1149FN816P washer and MS21042L08 nuts.

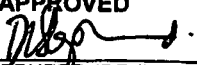
4.11 FOR D350-567-141 KIT

a) Align D4435-045 T/R Bellcrank Cover Assy with existing holes in RH seat track lower frame and temporarily install using clecos and/or cleco clamps as shown in Figure 12a.

b) Transfer drill 2 x $\varnothing 0.098$ holes from D4435-045 T/R Bellcrank Cover Assy to D4434-043 Fwd Inboard Bracket. Open holes to $\varnothing 0.191$ and install MS21059L3 nut plate into D4434-043 Fwd Inboard Bracket as shown in Figure 12a and Figure 13a. Install D4435-045 T/R Bellcrank Cover Assy using AN525-10R6 screw, AN3-3A bolt and NAS1149F0332P washer per Figure 12a and Figure 13a.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

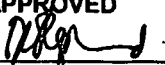
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 4 OF 19
APPROVED		TITLE	SCALE
DE APPR.		FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

4.12 FOR D350-567-143/-145 KIT

- a) Remove the D4972-041 Side Plate Assy from the D4971-041 T/R Bellcrank Cover Assy and retain fasteners.
 - b) Align D4971-1 T/R Bellcrank Cover with existing holes in RH seat track lower frame and temporarily install using clecos and/or cleco clamps as shown in Figure 12b.
 - c) Bond D4730-020-030 Velcro to back of D4971-1 T/R Bellcrank Cover as shown in Figure 12b using CB 200 adhesive.
 - d) Transfer drill 2 x $\varnothing 0.098$ holes from D4971-1 Cover Plate to D4434-043/D5076-043 Fwd Inboard Bracket. Open holes to $\varnothing 0.191$ and install MS21059L3 nut plate into D4434-043/D5076-043 Fwd Inboard Bracket as shown in Figure 13b/13c. Install D4971-1 Cover Plate using AN525-10R6 screws and D4730-020-030 Velcro per Figure 12b and Figure 13b/13c.
 - e) Re-install the D4972-041 Side Plate Assy using the retained fasteners.
- 4.13 The D4440-1 grommets are provided to facilitate the routing of wiring harness thru the close-out kit as required. The wiring harness should be secure to the aircraft structure per AC 43.13.13-1B or AS350 Chapter 20.02.01.
- 4.14 Use the D3802-1-024 Seal to fill gaps between the brackets and the cowlings that are larger than 0.25 inch.
- 4.15 Perform travel/interference check of the flight controls to ensure there is no interference and all controls still have full travel.
- 4.16 Ensure there is a gap between the components of the D350-567-141/-143/-145 Close-out Kit and the aircraft structure so that the Close-out Kit does not chafe, interfere, or cause damage to the surrounding aircraft structure. In areas where the D350-567-141 /-143/-145 Close-out Kit may contact the aircraft structure, protect from abrasion using chafing tape or a layer Proseal 890 or MIL-S-8802 class B2 sealant or equivalent as required.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 5 OF 19
APPROVED		TITLE	SCALE
DE APPR.		FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

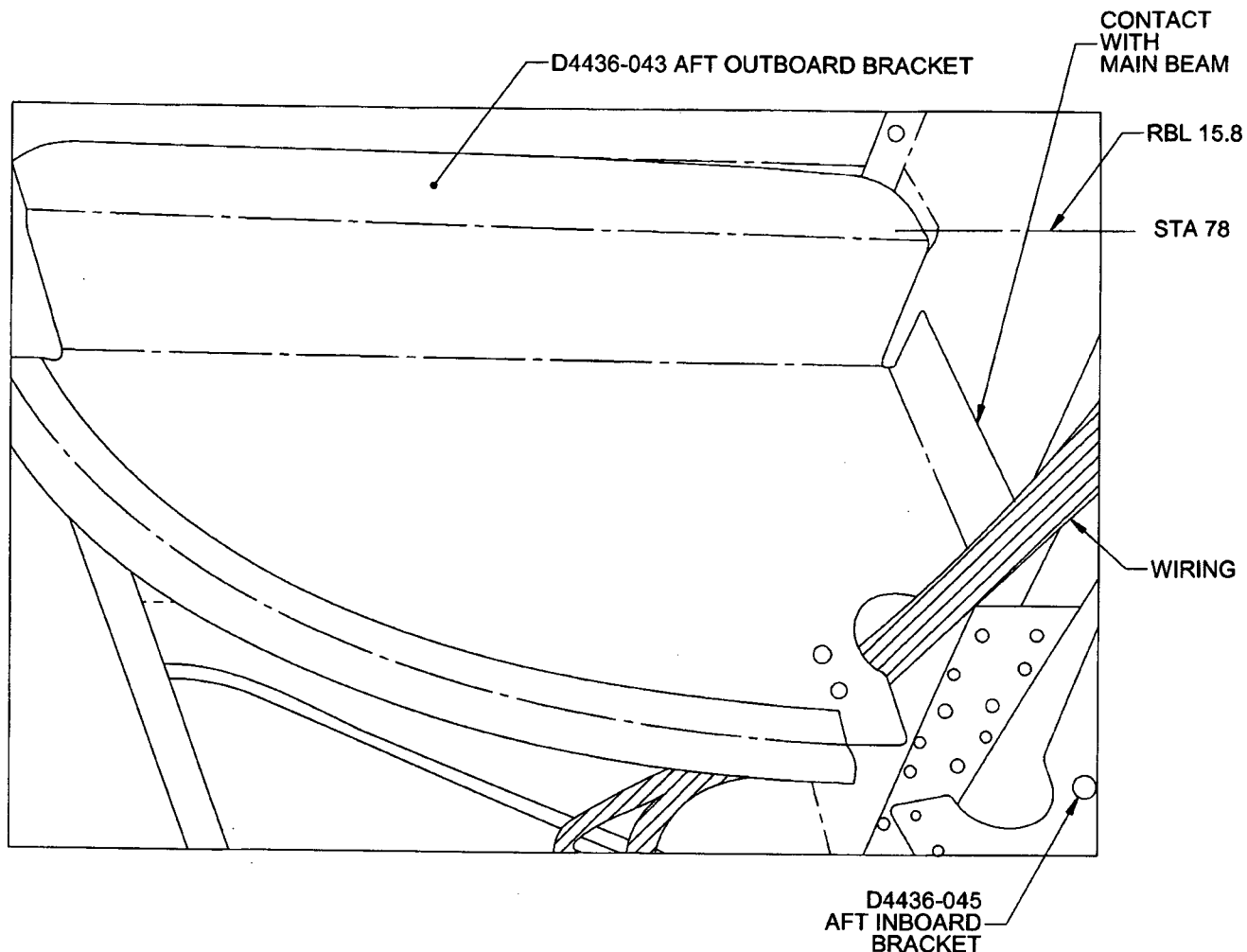


Figure 3. D4436-043 Aft Outboard Bracket Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 6 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE 15.01.12		COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

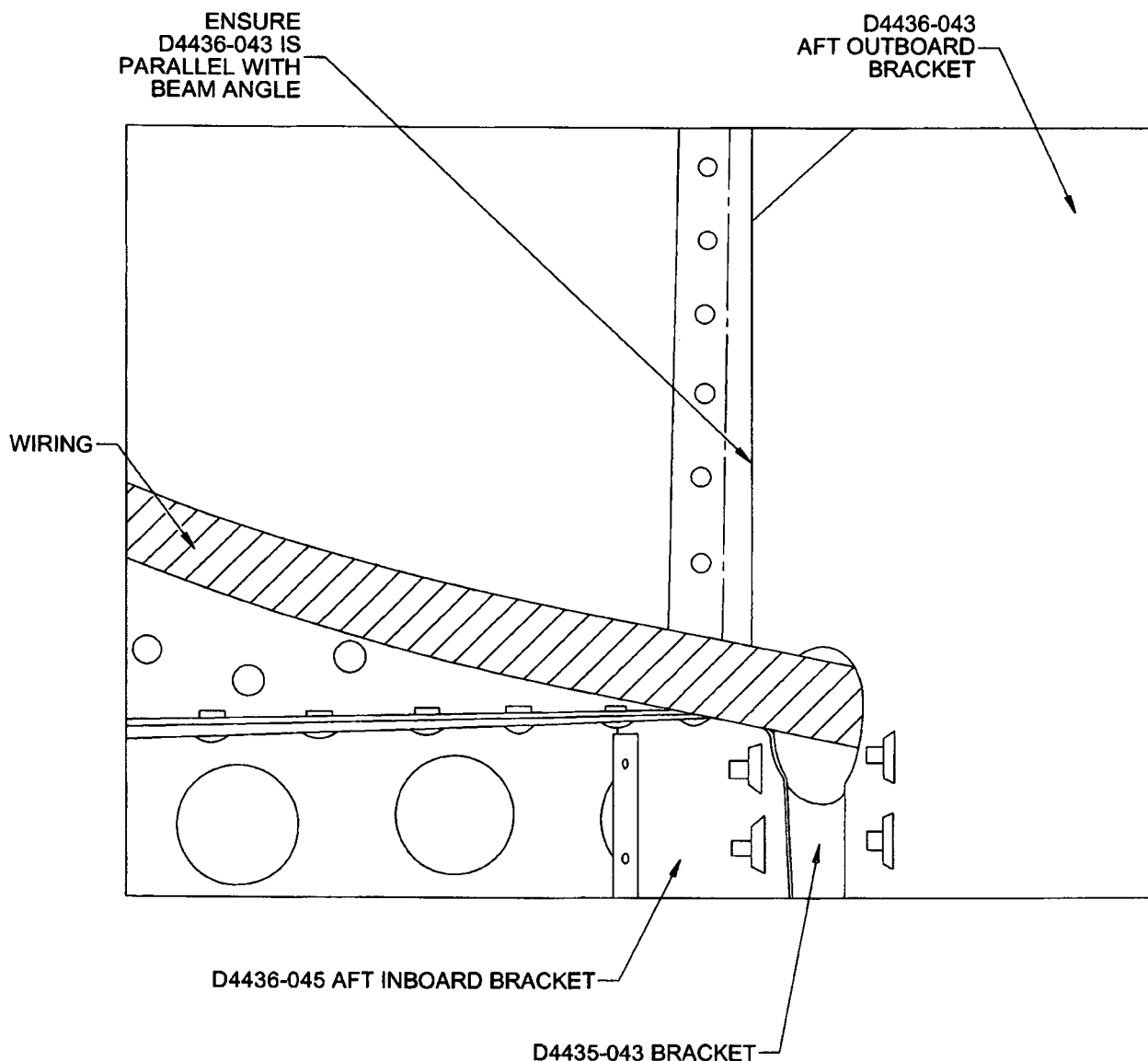


Figure 4. D4436-043 & D4435-043 Brackets Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: D. Shepherd
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<u>[Signature]</u>	DRAWING NO. DSI 9590	REV. F
MFG. APPR.	N/A	SHEET 7 OF 19	
APPROVED	<u>[Signature]</u>	TITLE	SCALE
DE APPR.	<u>[Signature]</u>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

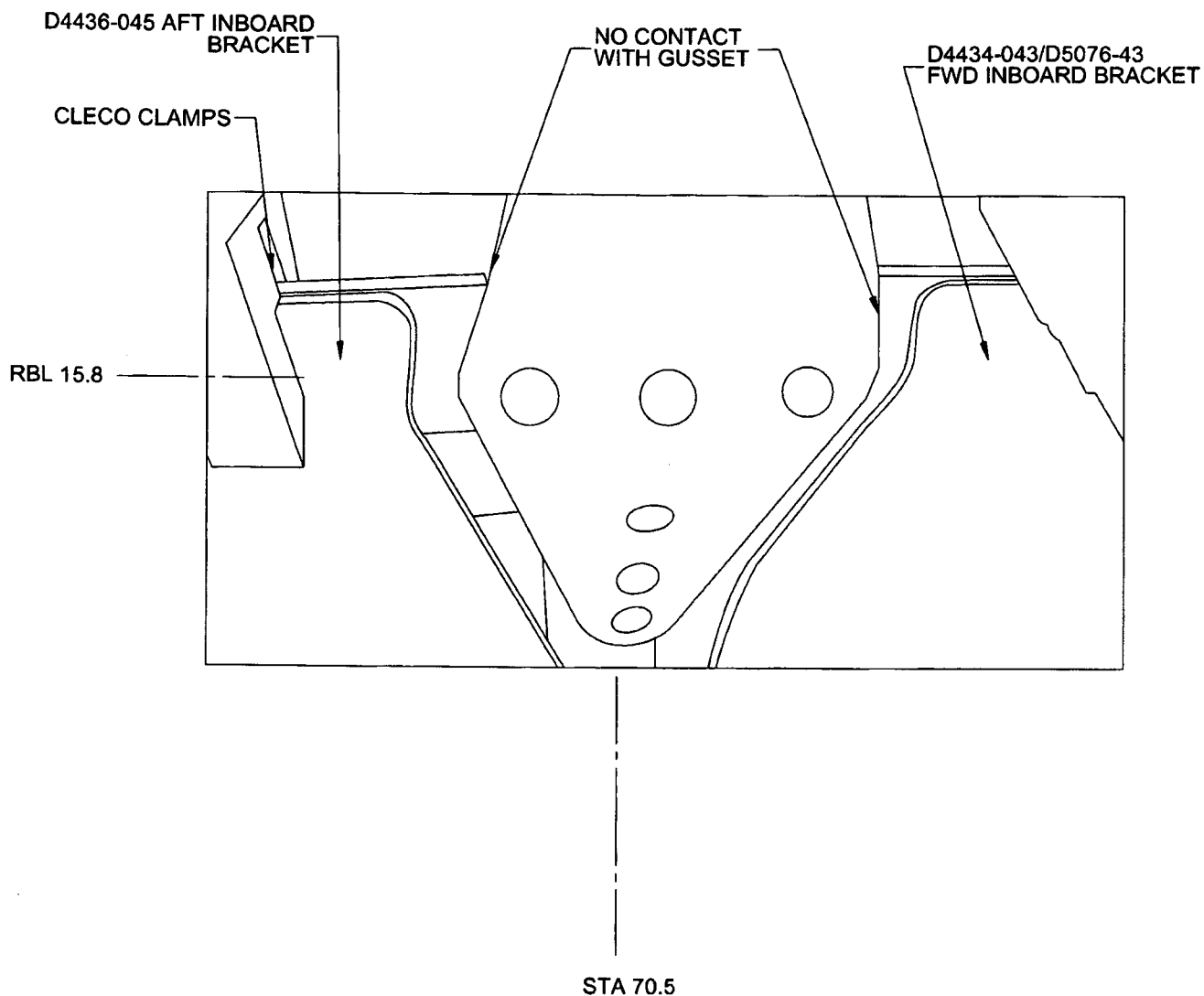


Figure 5. D4436-045 & D4434-043/D5076-043 Brackets Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9590	REV. F
MFG. APPR.	N/A	SHEET 8 OF 19	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

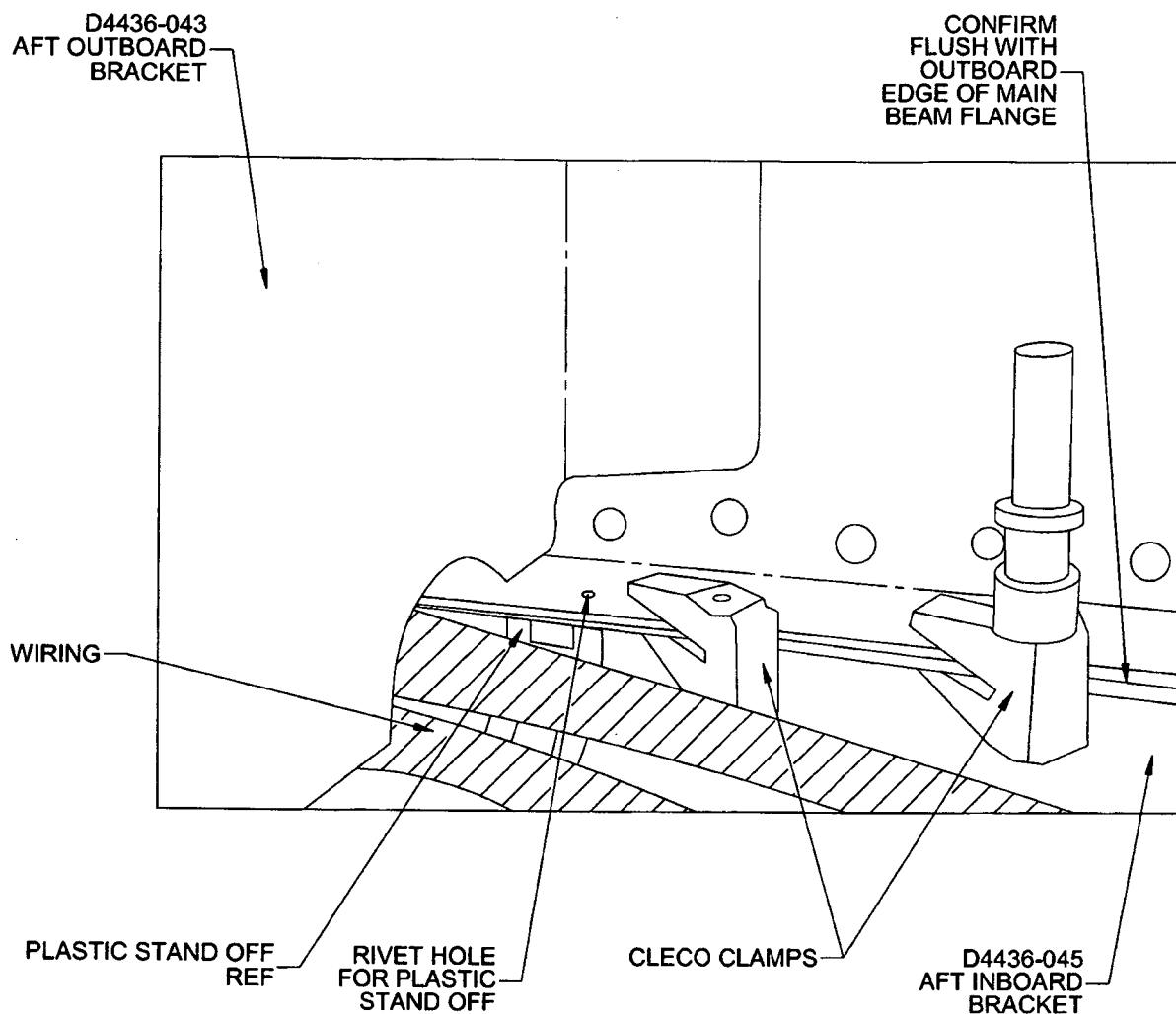


Figure 6. D4436-043 & D4436-045 Brackets Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	A/S		
CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9590	REV. F
MFG. APPR.	N/A	SHEET 9 OF 19	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

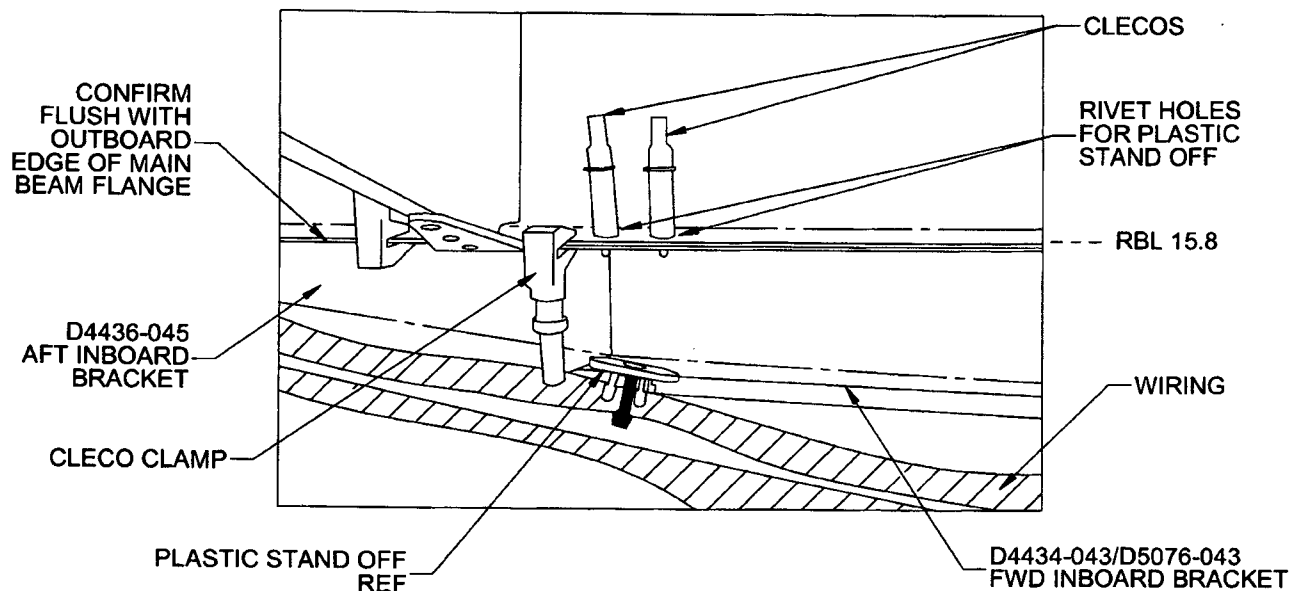


Figure 7. D4434-043/D5076-043 & D4436-045 Brackets Installation

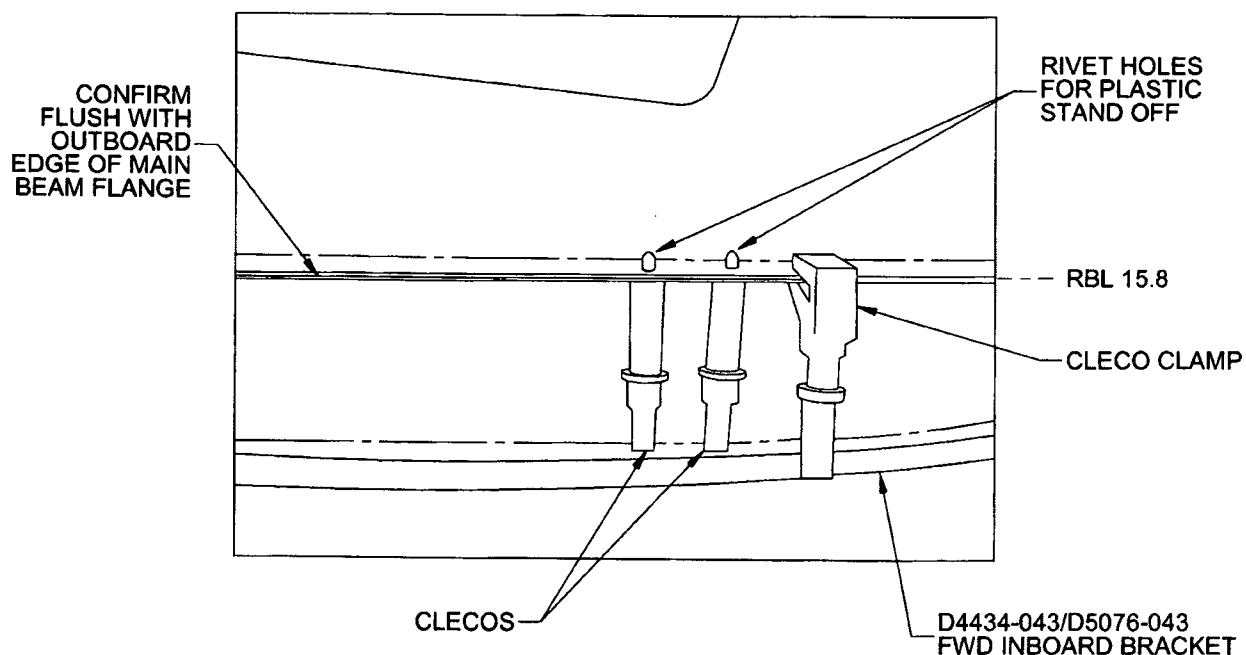


Figure 8. D4434-043/D5076-043 Fwd Inboard Bracket Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 10 OF 19
APPROVED		TITLE	SCALE
DE APPR.		FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

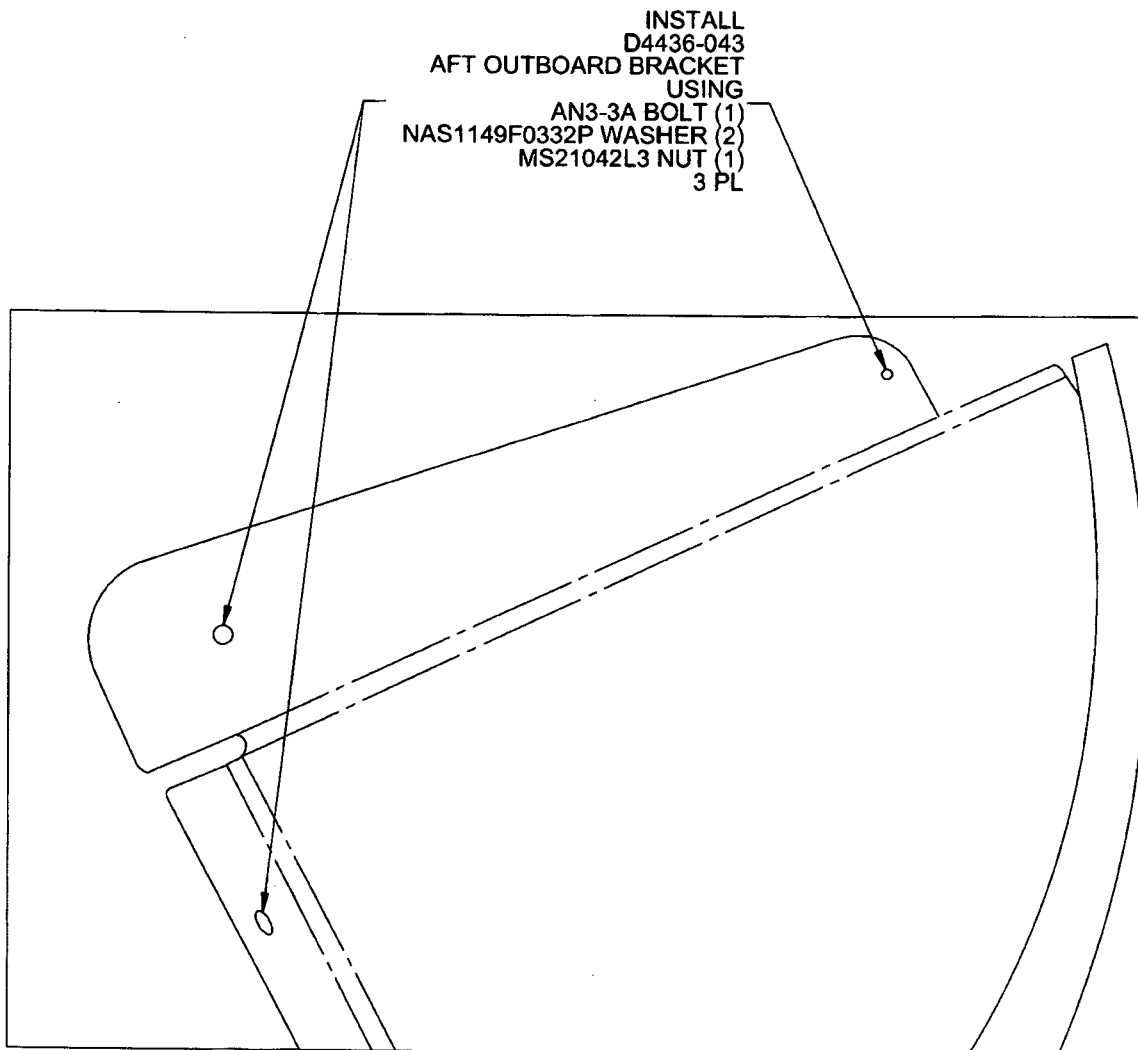


Figure 9. D4436-043 Aft Outboard Bracket Installation

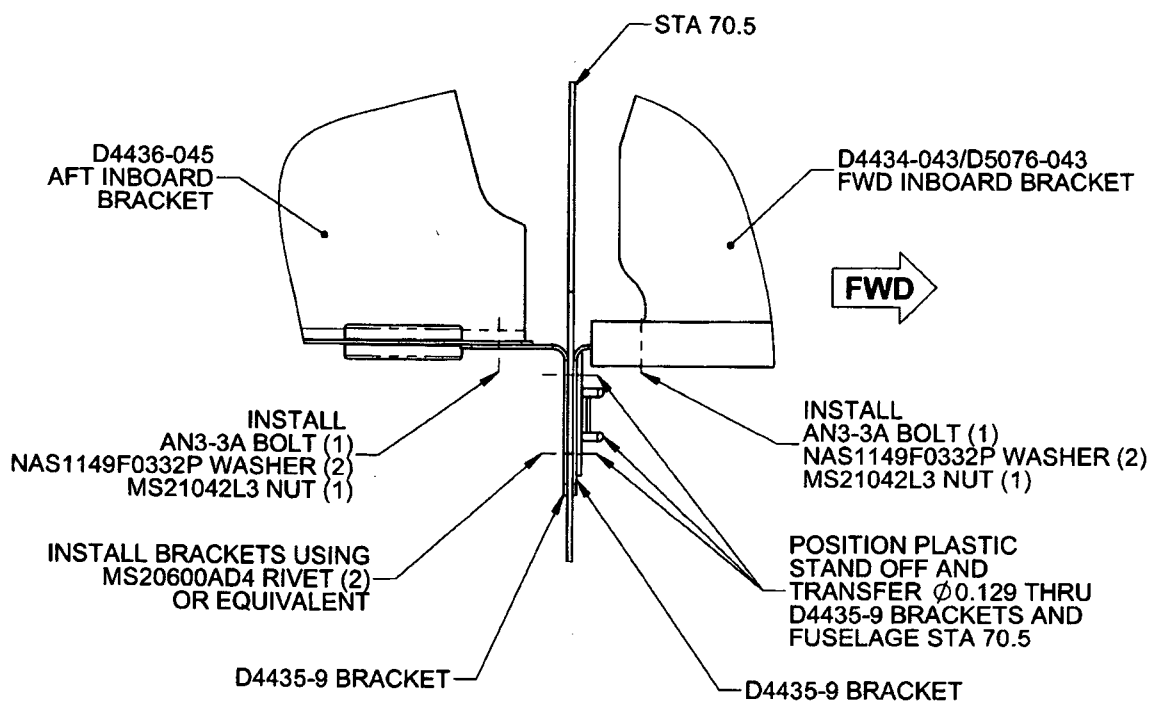
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	A/S	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 11 OF 19
APPROVED		TITLE	SCALE
DE APPR.		FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



LOOKING UP AT STA 70.5

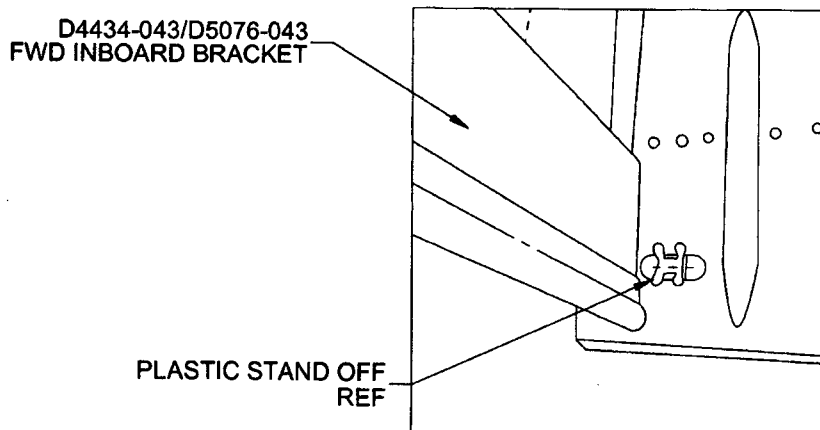


Figure 10. D4434-043/D5076-043 and D4435-9 Brackets Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9590	REV. F
MFG. APPR.	N/A	SHEET 12 OF 19	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

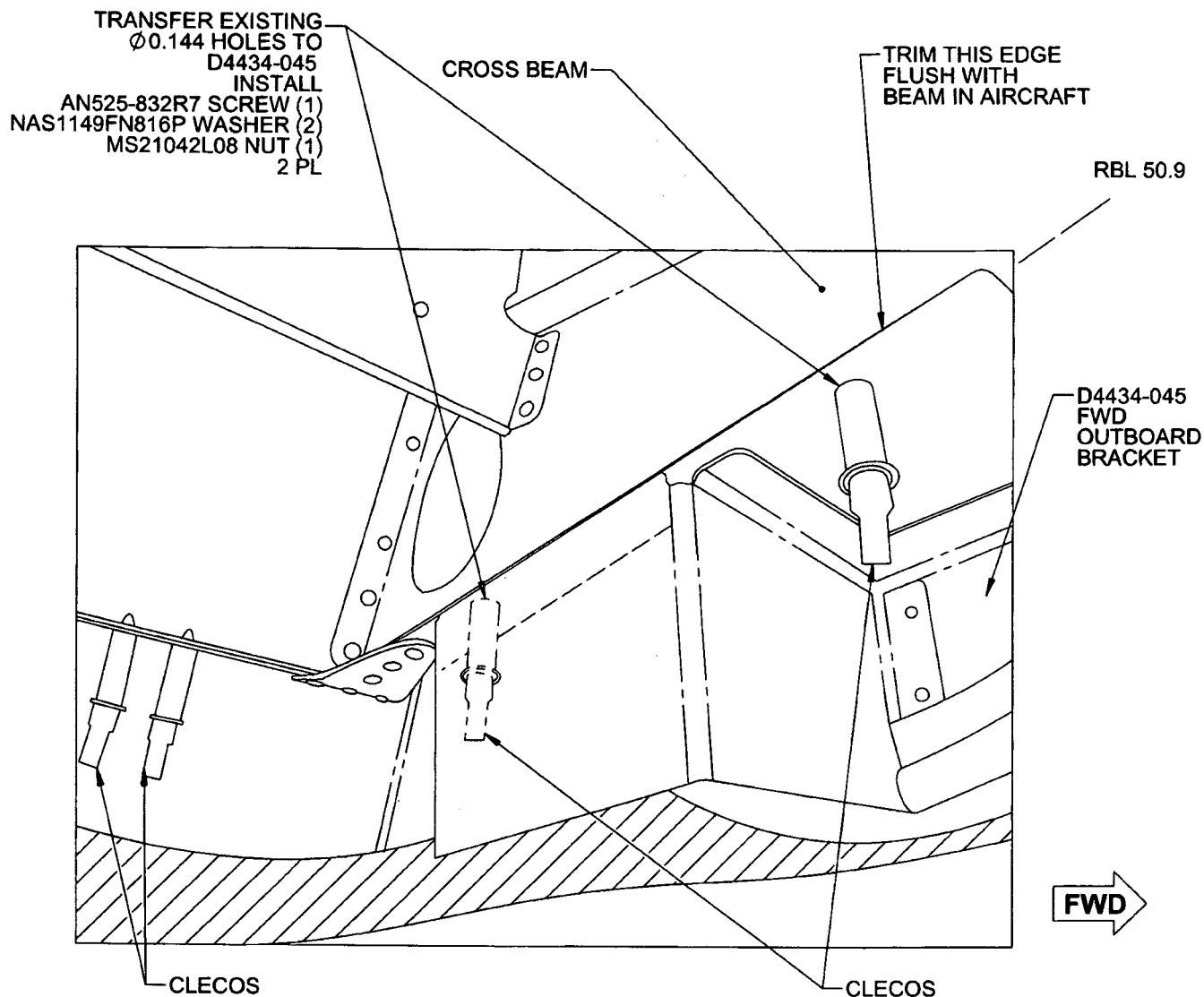


Figure 11. D4434-045 Bracket Installation

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 13 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

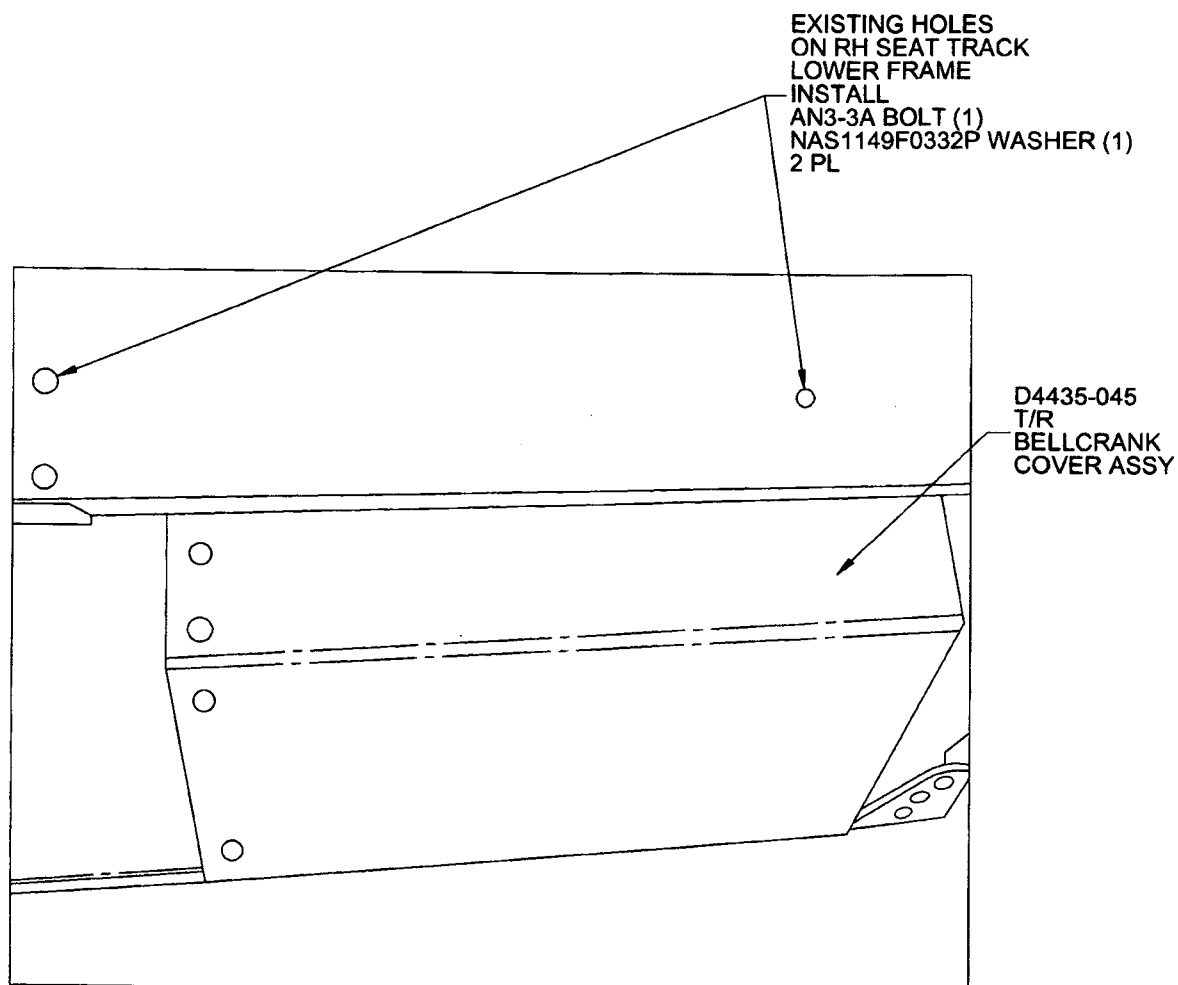


Figure 12a. D4435-045 T/R Bellcrank Cover Installation (-141)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ALS		
CHECKED		DRAWING NO. DSI 9590	REV. F
MFG. APPR.	N/A	SHEET 14 OF 19	
APPROVED		TITLE	SCALE
DE APPR.		FLOOR WINDOW CLOSE-OUT KIT NTS	
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

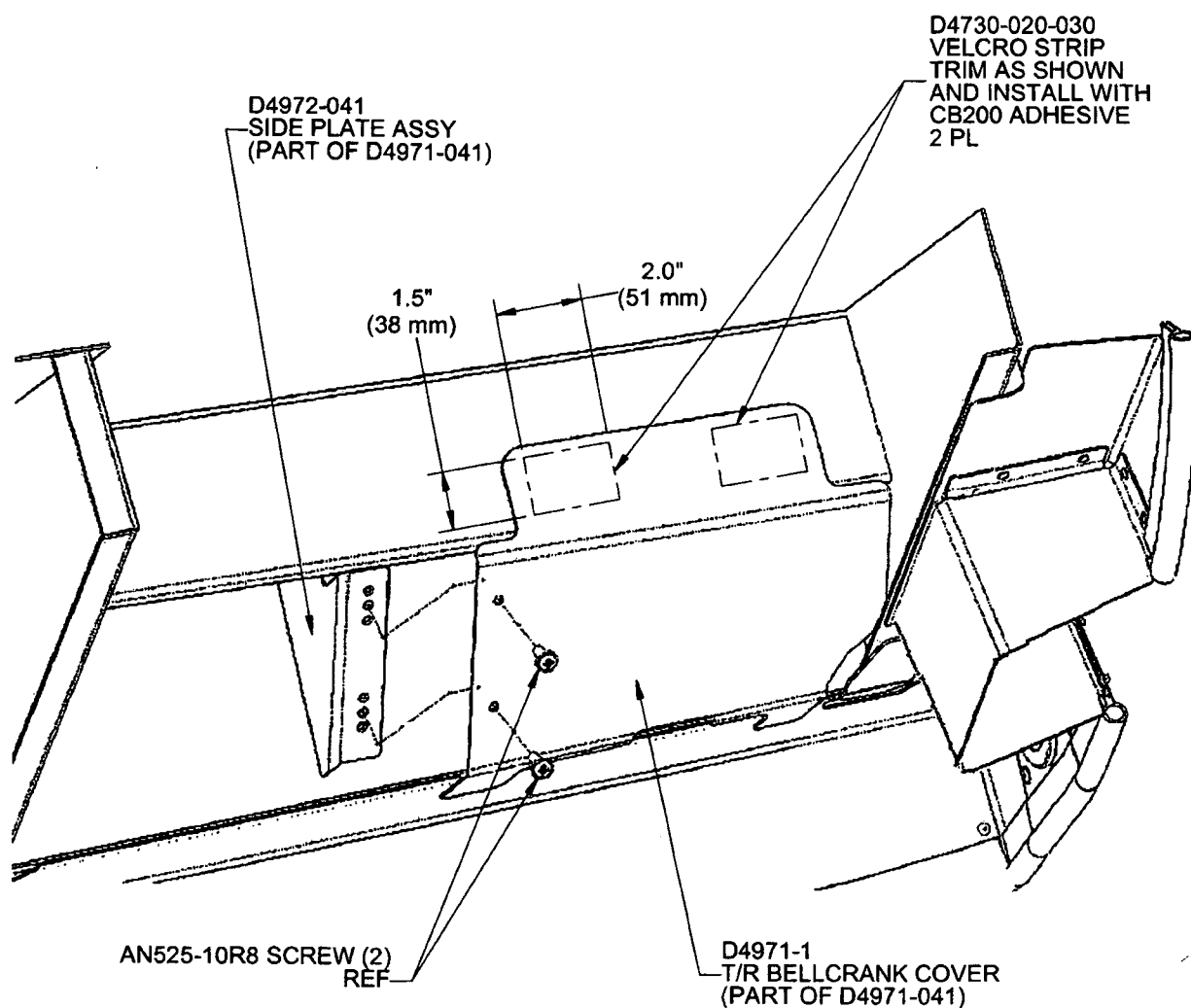


Figure 12b. D4971-041 T/R Bellcrank Cover Assy Installation (-143/-145)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 15 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

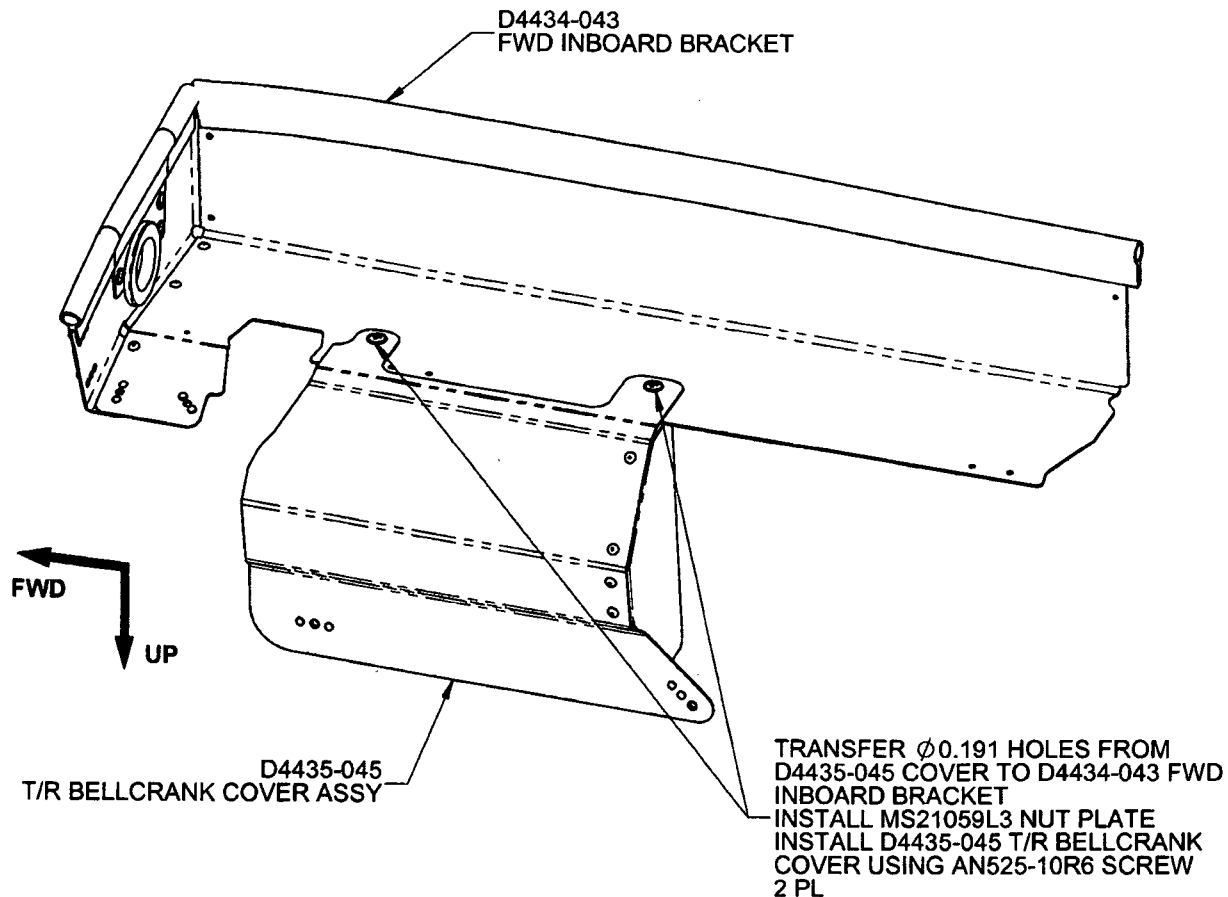


Figure 13a. D4435-045 Cover Installation (-141 ONLY)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	A/S		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 16 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

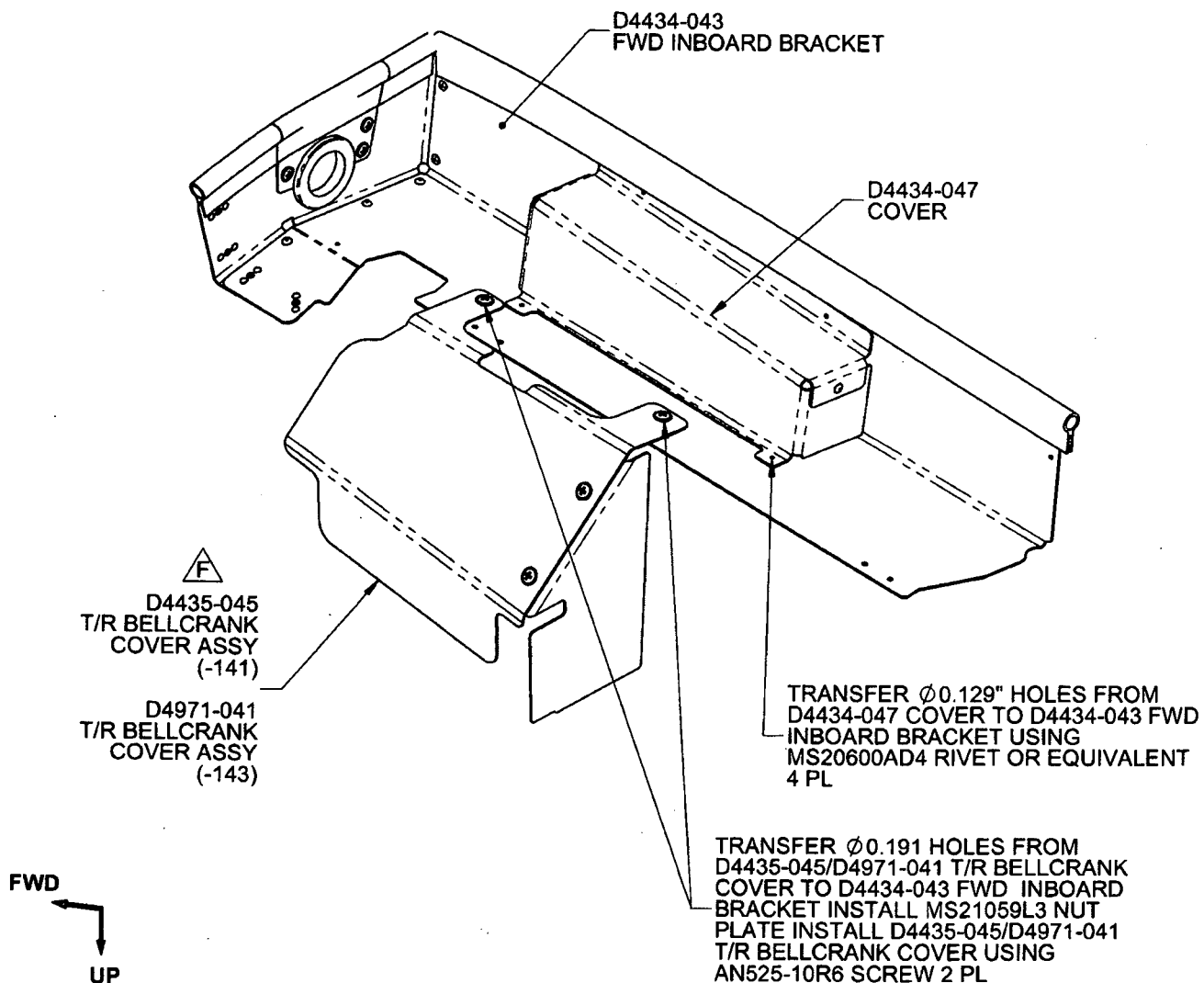


Figure 13b. D4971-041/D4435-045 & D4434-047 Cover Installation
(D4434-047 is Optional on -141)

F

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	A/S		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 17 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

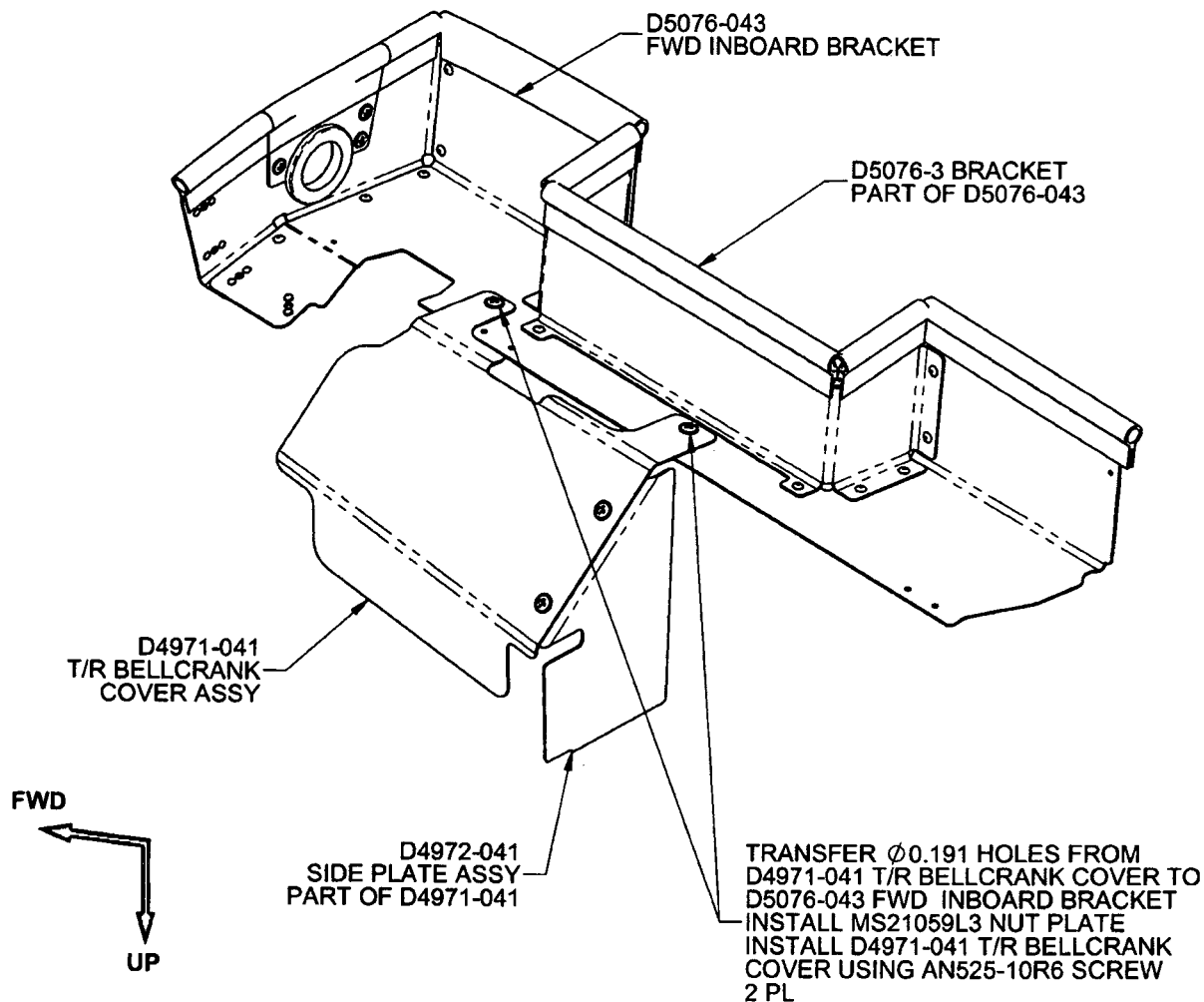


Figure 13c. D4971-041 INSTALLATION INTO D5076-043 (-145 ONLY)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 18 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

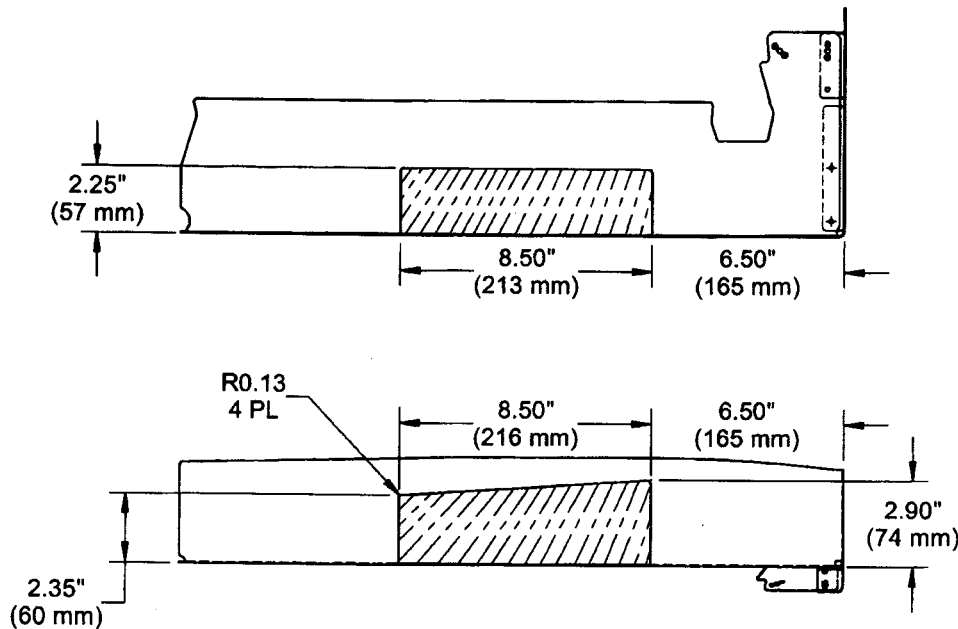
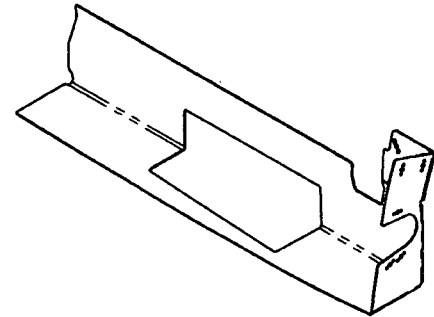


Figure 14. D4434-043 Fwd Inboard Bracket Cutout

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 19 OF 19
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DAS
6
9-89

Ref

2.0 Parts List

Qty -141	Qty -143	Qty -145	Part Number	Description
X			D350-567-141	FLOOR WINDOW CLOSE-OUT KIT (REGULAR SEATS)
	X		D350-567-143	FLOOR WINDOW CLOSE-OUT KIT (ENERGY ATTENUATING SEATS)
		X	D350-567-145	FLOOR WINDOW CLOSE-OUT KIT (AS 350 B3e)
1	1	1	D3802-1-024	SEAL (24")
1	1		D4434-041	FWD BRACKET ASSEMBLY
1	1		D4434-047	COVER ASSEMBLY
1			D4435-045	T/R BELLCRANK COVER ASSEMBLY
2	2	2	D4435-9	BRACKET
1	1	1	D4436-041	AFT BRACKET ASSEMBLY
1	1	1	D4441-1-240	RUBBER SEAL (24")
		1	D4730-020-030	VELCRO STRIP
	1	1	D4971-041	T/R BELLCRANK COVER ASSEMBLY
		1	D5076-041	FWD BRACKET ASSEMBLY
7	5	5	AN3-3A	BOLT
2	2	2	AN525-10R6	SCREW
2	2	2	AN525-832R7	SCREW
		1	CB 200	3.5g ACRYLIC ADHESIVE
7	7	7	MS21042L06	NUT (OR MS21042-06)
2	2	2	MS21042L08	NUT (OR MS21042-08)
5	5	5	MS21042L3	NUT (OR MS21042-3)
2	2	2	MS21059L3	NUTPLATE
7	7	7	MS35206-229	SCREW
12	10	10	NAS1149F0332P	WASHER (AN960-10L)
14	14	14	NAS1149FN616P	WASHER (OR AN960-6L)
2	2	2	NAS1149FN816P	WASHER (OR AN960-8L)

3.0 Weight and Balance

The following is the net weight increase associated with the D350-567-141/-143/-145 Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-567-141/-143/-145	3.9 lb	17.9 in	69.8 in-lb	65.5 in	255.5 in-lb
Floor Window Close-out Kit	1.77 kg	0.45 m	0.80 m-k	1.66 m	2.94 m-k

4.0 Installation Procedure

Notes:

- Figure 2 shows the general arrangement and installation of the D350-567-141/-143/-145 Close-out Kits. The procedure that follows outlines the step-by-step procedures for installing the kit with reference photos from the initial installation.
- In conjunction with this modification, it is acceptable to remove the interior floor windows as applicable. Note that the structural reinforcement around the window opening is still required.
 - D350-567-115 - OK to remove D3295-041
 - D350-567-031 - OK to remove D3212-1
 - D350-567-011 - OK to remove D2214
 - D350-567-021 - OK to remove D2951
- It is acceptable to drill/trim the D350-567-141/-143/-145 Close-out Kits as required to improve fit.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: D. SHEPHERD (DE # 02)

DATE: 15.01.12
CERT. NO.: SH92-18
ISSUE NO.: 6

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<u>A</u>	DRAWING NO.	REV. F
MFG. APPR.	N/A	DSI 9590	SHEET 2 OF 19
APPROVED	<u>AS</u>	TITLE	SCALE
DE APPR.	<u>AS</u>	FLOOR WINDOW CLOSE-OUT KIT	NTS
DATE	15.01.12	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Work Order ID 134384

Wednesday, July 08, 2015 3:12:11 PM

134384

Page 1

Item ID: D350-567-141

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Floor Window Close Out

Start Date: 6/29/15

Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/07/15

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: MLS

Date: JUL 08 2015

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

DSI 9590

F

①

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D350-567-141 CHG003

004 see attachment

MLS JUL 15 2015

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

① J.A. JUL 15 2015

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

PAGE 1 OF 1

FLOOR WINDOW CLOSEOUT

[illegible]